

Applic. No. 10/823,986
Amdt. dated September 19, 2005
Reply to Office action of June 20, 2005

Claim Amendments

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): A filter assembly through which a fluid can flow, the filter assembly comprising:

at least one fiber layer made from a fiber fabric; and

at least one covering layer formed from at least partially porous material, said at least one covering layer having at least one boundary region, and said at least one covering layer forming a sleeve surrounding said at least one fiber layer and captively holding said at least one fiber layer inside said at least one covering layer;

said fiber layer and said covering layer being resistant to temperatures of over 200°C.

Claim 2 (original): The filter assembly according to claim 1, wherein said at least one covering layer forming said sleeve is one covering layer having said at least one boundary region and an opposite deformation region, said covering layer being

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connected to itself by technical joining in said at least one boundary region.

Claim 3 (original): The filter assembly according to claim 1, wherein said at least one covering layer is at least two covering layers forming said sleeve, said at least two covering layers being connected to one another by technical joining in said at least one boundary region, and said at least one fiber layer being disposed captively between said at least two interconnected covering layers.

Claim 4 (original): The filter assembly according to claim 1, wherein said at least one covering layer has a reduced porosity in said at least one boundary region, relative to a remaining region.

Claim 5 (original): The filter assembly according to claim 1, wherein said at least one covering layer has no porosity in said at least one boundary region, relative to a remaining region.

Claim 6 (original): The filter assembly according to claim 1, wherein said at least one covering layer is a metal foil with a thickness of less than 0.04 mm.

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Claim 7 (original): The filter assembly according to claim 1, wherein said at least one covering layer is a metal foil with a thickness of less than 0.03 mm.

Claim 8 (original): The filter assembly according to claim 1, wherein said at least one covering layer is a metal foil with a thickness of less than 0.02 mm.

Claim 9 (original): The filter assembly according to claim 1, wherein said at least one covering layer and said at least one fiber layer together have a mean porosity of greater than 70%.

Claim 10 (original): The filter assembly according to claim 1, wherein said at least one covering layer and said at least one fiber layer together have a mean porosity of greater than 90%.

Claim 11 (original): The filter assembly according to claim 2, wherein said at least one covering layer has an edge, and said at least one boundary region extends from said edge over a boundary width of between 3 mm and 15 mm.

Claim 12 (original): The filter assembly according to claim 2, wherein said at least one covering layer has at least at two opposite edges, and said at least one boundary region

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extends from said at least two opposite edges over boundary widths of between 3 mm and 15 mm.

Claim 13 (original): The filter assembly according to claim 3, wherein said at least one covering layer has an edge, and said at least one boundary region extends from said edge over a boundary width of between 3 mm and 15 mm.

Claim 14 (original): The filter assembly according to claim 3, wherein said at least one covering layer has at least at two opposite edges, and said at least one boundary region extends from said at least two opposite edges over boundary widths of between 3 mm and 15 mm.

Claim 15 (original): The filter assembly according to claim 2, wherein said connection of said covering layer by technical joining is a brazed connection.

Claim 16 (original): The filter assembly according to claim 3, wherein said connection of said at least two covering layers by technical joining is a brazed connection.

Claim 17 (original): The filter assembly according to claim 1, wherein said at least one fiber layer has a first length and a first width, said at least one covering layer has a

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second length and a second width, and at least one of said first length and said first width being less than at least one of said second length and said second width.

Claim 18 (original): The filter assembly according to claim 1, wherein said at least one fiber layer has a dimension of from 0.01 mm to 1 mm.

Claim 19 (original): The filter assembly according to claim 1, wherein said at least one covering layer has at least one flow-guiding surface.

Claim 20 (original): A filter body for cleaning an exhaust-gas stream from an internal combustion engine, the filter body comprising:

a casing; and

at least one filter assembly according to claim 1 at least partially disposed in said casing and forming passages.

Claim 21. The filter body according to claim 20, wherein said at least one filter assembly corresponds to a honeycomb structure having said passages.

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Claim 22 (original): The filter body according to claim 20, wherein said passages are at least partially narrowed.

Claim 23 (original): The filter body according to claim 20, wherein said at least one covering layer at least in part has a structure substantially delimiting said passages.

Claim 24 (currently amended): A process for producing a filter assembly through which a fluid can flow, the process comprising the following steps:

providing at least one covering layer formed with a given porosity and a resistance to temperatures of over 200°C, the at least one covering layer having at least one boundary region formed with a porosity less than the given porosity;

placing at least one fiber layer made of a fiber fabric having a resistance to temperatures of over 200°C on the at least one covering layer;

forming a sleeve with the at least one covering layer surrounding the at least one fiber layer; and

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forming a connection by technical joining in the at least one boundary region, captively fixing the at least one fiber layer within the at least one covering layer.

Claim 25 (original): The process according to claim 24, wherein the at least one boundary region is non-porous.

Claim 26 (original): The process according to claim 24, which further comprises carrying out the step of forming the sleeve by deforming the at least one covering layer.

Claim 27 (original): The process according to claim 26, which further comprises carrying out the step of deforming the at least one covering layer by a deforming method selected from the group consisting of bending, creasing and folding the at least one covering layer in a deformation region.

Claim 28 (original): The process according to claim 24, which further comprises carrying out the step of forming the sleeve by placing the at least one fiber layer between two covering layers, with the boundary regions of the covering layers being at least partly directly superimposed on one another.

Claim 29 (original): The process according to claim 24, which further comprises introducing a structure into the at least

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one covering layer before the step of placing the at least one fiber layer on the at least one covering layer.

Claim 30 (original): The process according to claim 24, which further comprises carrying out the step of forming the sleeve by using two covering layers, and successively introducing a structure into the two covering layers over time, each producing a different structure.

Claim 31 (original): The process according to claim 24, which further comprises carrying out the step of forming the connection by technical joining through the use of a welding operation.

Claim 32 (original): The process according to claim 24, which further comprises carrying out the step of forming the connection by technical joining through the use of a brazing operation.

Claim 33 (original): The process according to claim 24, which further comprises providing the at least one covering layer with a brazing material stop outside the at least one boundary region.